

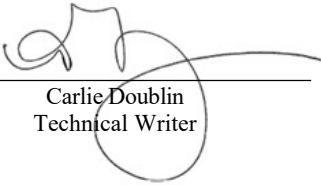
National Technical Systems Test Report for Electromagnetic Interference (EMI) Testing of the Verity Touch Writer with Brother HL - L6400DWVS Printer Attached

Prepared For


SLI Compliance | 4720 Independence Street | Wheat Ridge, CO 80033

Performed By

National Technical Systems | 1736 Vista View Drive | Longmont, CO 80504-5242 | 303-776-7249 | www.nts.com



Carlie Dublin
Technical Writer



Eugene Devito
EMI Project Engineer

This report and the information contained herein represent the results of testing articles/products identified and selected by the client. The tests were performed to specifications and/or procedures approved by the client. National Technical Systems (NTS) makes no representations expressed or implied that such testing fully demonstrates efficiency, performance, reliability, or any other characteristic of the articles being tested, or similar products. This report should not be relied upon as an endorsement or certification by NTS of the equipment tested, nor does it represent any statement whatsoever as to its merchantability or fitness of the test article or similar products for a particular purpose. This document shall not be reproduced except in full without written approval from NTS.



Revision History

Rev.	Description	Issue Date
0	Initial Release	05/04/2022
1	Added 1-10GHz testing to the test log.	05/24/2022
2	Fixed 1-10GHz plots and added more info to the test log.	05/25/2022

Table of Contents

1.0	Introduction	4
2.0	References	4
3.0	Product Selection and Description.....	4
3.1	Security Classification	4
4.0	General Test Requirements	4
4.1	Test Equipment	4
4.2	Measurement Uncertainties.....	4
5.0	Test Descriptions and Results.....	5
5.1	Radiated Emissions	6
5.1.1	Test Procedure	6
5.1.2	Test Result	6
5.1.3	Test Datasheets	6
5.1.4	Test Photographs	8
5.1.5	Test Data	10
5.1.6	Test Equipment List	16
5.2	Conducted Emissions.....	21
5.2.1	Test Procedure	21
5.2.2	Test Result	21
5.2.3	Test Datasheets	21
5.2.4	Test Photographs	23
5.2.5	Test Data	25
5.2.6	Test Equipment List	33
6.0	Test Log.....	34

List of Tables

Table 3.0-1: Product Identification - Equipment Under Test (EUT).....	4
Table 4.2-1: Measurement Uncertainties.....	4
Table 5.0-1: Summary of Test Information & Results	5
Table 5.1-1: Radiated Emissions Test Equipment List.....	20
Table 5.2-1: Conducted Emissions Test Equipment List.....	33

1.0 Introduction

This document presents the test procedures used and the results obtained during the performance of an Electromagnetic Interference (EMI) test program. The test program was conducted to assess the ability of the specified Equipment Under Test (EUT) to successfully satisfy the requirements listed in Section 2.0.

2.0 References

The following references listed below form a part of this document to the extent specified herein.

- Test Specification: FCC Part 15 Class B
- SLI Compliance Purchase Order(s) 20220207-02, dated 02/07/2022
- National Technical Systems (NTS) Quote(s) OP0607046, dated 02/02/2022
- ISO/IEC 17025:2017(E) *General Requirements for the Competence of Testing and Calibration Laboratories*, dated 11/1/2017

3.0 Product Selection and Description

SLI Compliance selected and provided the test sample(s) to be used as the Equipment Under Test. Details below:

Table 3.0-1: Product Identification - Equipment Under Test (EUT)

Item	Qty.	Name/Description	Part Number	Serial Number
1	1	Verity Touch Writer	3005852	W2014374311
2	1	Brother L6400 Laser Printer	HL-L6400DWVS	U64185J1N427136

3.1 Security Classification

Non-classified

4.0 General Test Requirements

4.1 Test Equipment

The instrumentation used in the performance of these tests is periodically calibrated and standardized within manufacturer's rated accuracies and are traceable to the National Institute of Standards and Technology. The calibration procedures and practices are in accordance with ANSI/NCSL Z540-1 and ISO 17025:2017. Certification of calibration is on file subject to inspection by authorized personnel.

4.2 Measurement Uncertainties

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below were calculated using the approach described in CISPR 16-4-2:2003 using a coverage factor of k=2, which gives a level of confidence of approximately 95%. The levels were found to be below levels of CISPR and therefore no adjustment of the data for measurement uncertainty is required.

Table 4.2-1: Measurement Uncertainties

Measurement Type	Measurement Unit	Frequency Range
Conducted Emissions	dBuV or dBuA	150 kHz – 30 MHz
Radiated Electric Field	dBuV/m	30-1,000 MHz
		1,000-6,000 MHz



5.0 Test Descriptions and Results

Table 5.0-1: Summary of Test Information & Results

Section	Test	Specification	Test Facility	Test Date	Part #	Serial #	Test Result
5.1	Radiated Emissions	FCC Part 15 Class B	Longmont	03/28/2022 - 04/04/2022	3005852 HL-L6400DWVS	W2014374311 U64185J1N427136	Conforms
5.2	Conducted Emissions	FCC Part 15 Class B	Longmont	03/28/2022 - 04/04/2022	3005852 HL-L6400DWVS	W2014374311 U64185J1N427136	Conforms

5.1 Radiated Emissions

5.1.1 Test Procedure

FCC Part 15

5.1.2 Test Result

The Verity Touch Writer with Brother L6400 Printer met the specification requirements for Radiated Emissions.

5.1.3 Test Datasheets



National Technical Systems				
Radiated Emissions, FCC Part 15, Class B				
Standard Referenced: FCC Part 15, Class B		Date: 3/24/2022		
Temperature: 20°C	Humidity: 18%	Pressure: 831mb		
Input Voltage: 120Vac, 60Hz				
Configuration of Unit: Verify Scan w/Ballot box fully exercising all features of product.				
Test Engineer: W. Koenig				
Date	Time	Log Entries	Initials	Result
3/24/22	1200 - 1230	Initial Product Setup for Radiated Emissions	WK	--
	1230-1340	Radiated Emissions, 30 MHz - 1 GHz. FCC Part 15. Class B. 120 VAC / 60 Hz	WK	---
	1340-1355	Lost all power in building. Restarting test equipment and clients EUT.	WK	---
	1400-1500	Continuing Radiated Emissions, 30 MHz - 1 GHz. FCC Part 15. Class B. 120 VAC / 60 Hz	WK	Pass



National Technical Systems	
Radiated Emissions, FCC Part 15, Class B	
Standard Referenced: <u>FCC Part 15, Class B</u>	Date: <u>3/24/2022</u>
Temperature: <u>20°C</u> Humidity: <u>18%</u>	Pressure: <u>831mb</u>
Input Voltage: <u>120Vac, 60Hz</u>	
Configuration of Unit: <u>Verify Scan w/Ballot box fully exercising all features of product.</u>	
Test Engineer: <u>W. Koenig</u>	

Type refers to the type of measurement performed. The type of measurement made is based on the requirements of the particular standard:

PK = Peak Measurement: RBW is 120kHz, VBW is 3 MHz

QP = Quasi-Peak Measurement: RBW is 120kHz, VBW is 3 MHz, and QP Detection is ENABLED

AV = Video Average Measurement: RBW is 1 MHz, VBW is 10 Hz

The "field strength" (FS) emissions level is attained by adding the received amplitude measured (RA), Antenna factor (AF), and cable factor (CF) minus the amplifier gain (AG). $FS = RA + AF + CF - AG$. Final measurements are made with the Azimuth, Polarity, Height, and EUT Cables positioned for maximum radiation. If applicable, cables positions are noted in the test log.

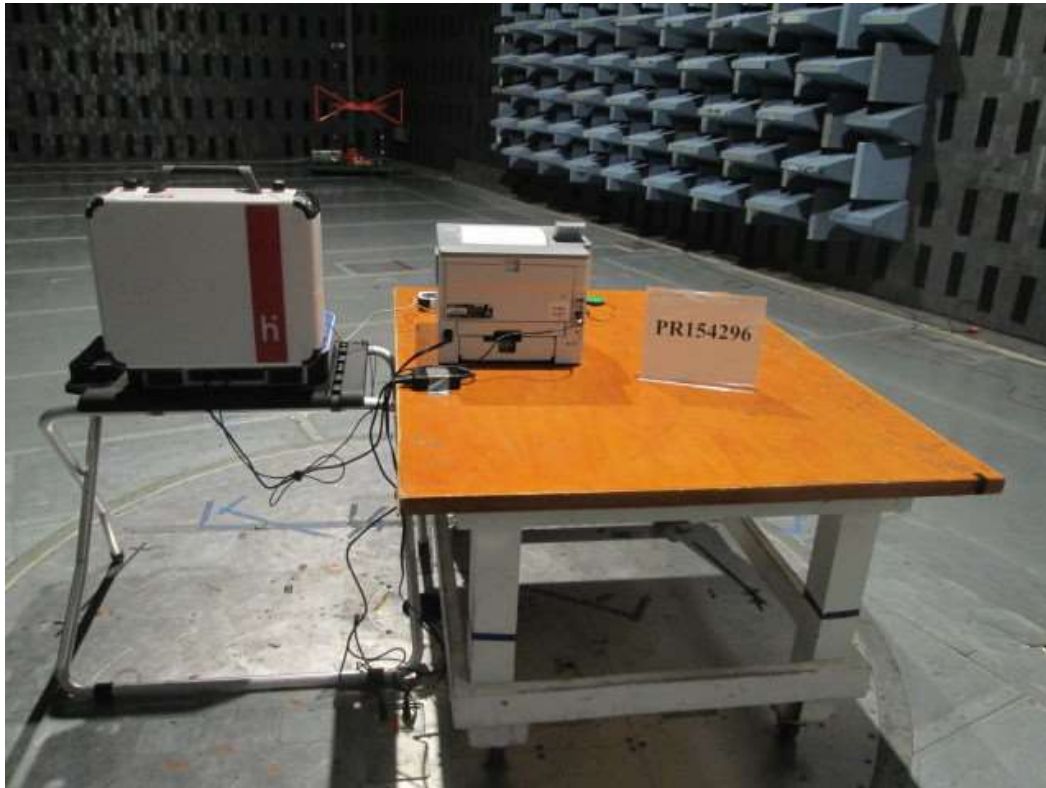
(Sample Calculation: $49.6 \text{ dBuV} + 11.4 \text{ dB/m} - 28.8 \text{ dB (CF/AG)} = 32.2 \text{ dBuV/m}$. Important Note: This is a sample calculation only for the purpose of demonstration, and does not reflect data in this report.)

The "Azm/Pol/Hgt" indicates the turn-table azimuth, the antenna polarity, and the antenna height where the maximum emissions level was measured.

The "Margin" is with reference to the emissions limit. A positive number indicates that the emission measurement is below the limit. A negative number indicates that the emission measurement exceeds the limit.

The PRESCAN is a peak measurement and is performed with the RBW set to 120 kHz, VBW set to 3 MHz (30 MHz to 1 GHz), and the RBW set to 1 MHz, VBW set to 3MHz (> 1 GHz)

5.1.4 Test Photographs



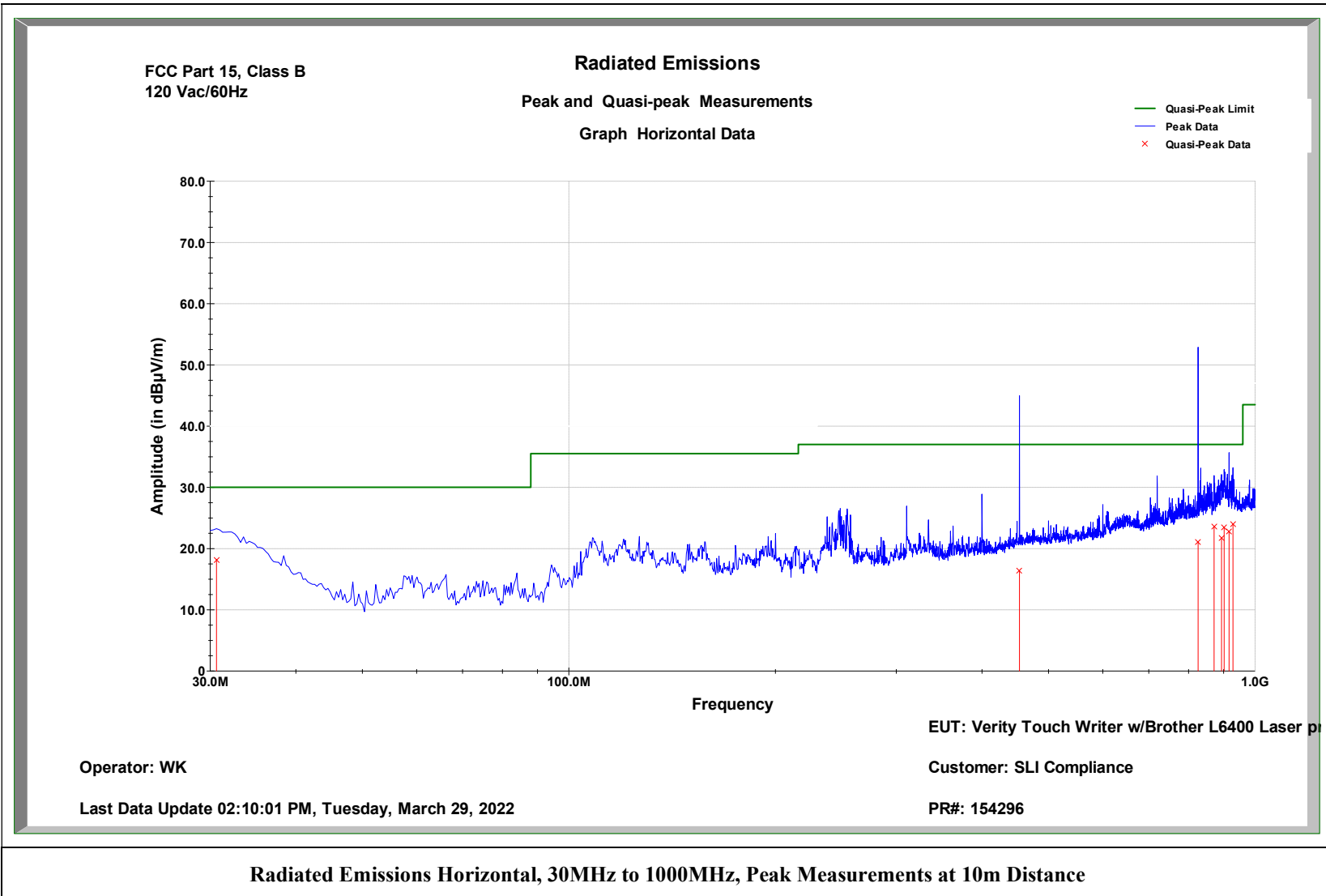
RE Back



RE Front

**RE Left****RE Right**

5.1.5 Test Data





Radiated Emissions
Quasi-peak Measurements

Table: Horizontal Quasi-peaks below 1 GHz

Operator: WKEUT: Verity Touch Writer w/Brother L6400 Laser printer

PR#: 154296

Customer: SLI Compliance

Frequency Amplitude Quasi-peak Delta to Lir EUT Azimu: Antenna Height

MHz	in dB μ V/m	in dB μ V/m	in dB	in degrees	in cm
30.647	18.2	30	-11.8	195	224
453.567	16.4	37	-20.6	165	275
826.047	21.1	37	-15.9	242	124
871.637	23.6	37	-13.4	163	325
893.623	21.7	37	-15.3	29	124
901.383	23.5	37	-13.5	156	325
916.58	22.8	37	-14.2	27	123
928.543	24	37	-13	156	325

FCC Part 15 Class B
120 Vac/60Hz

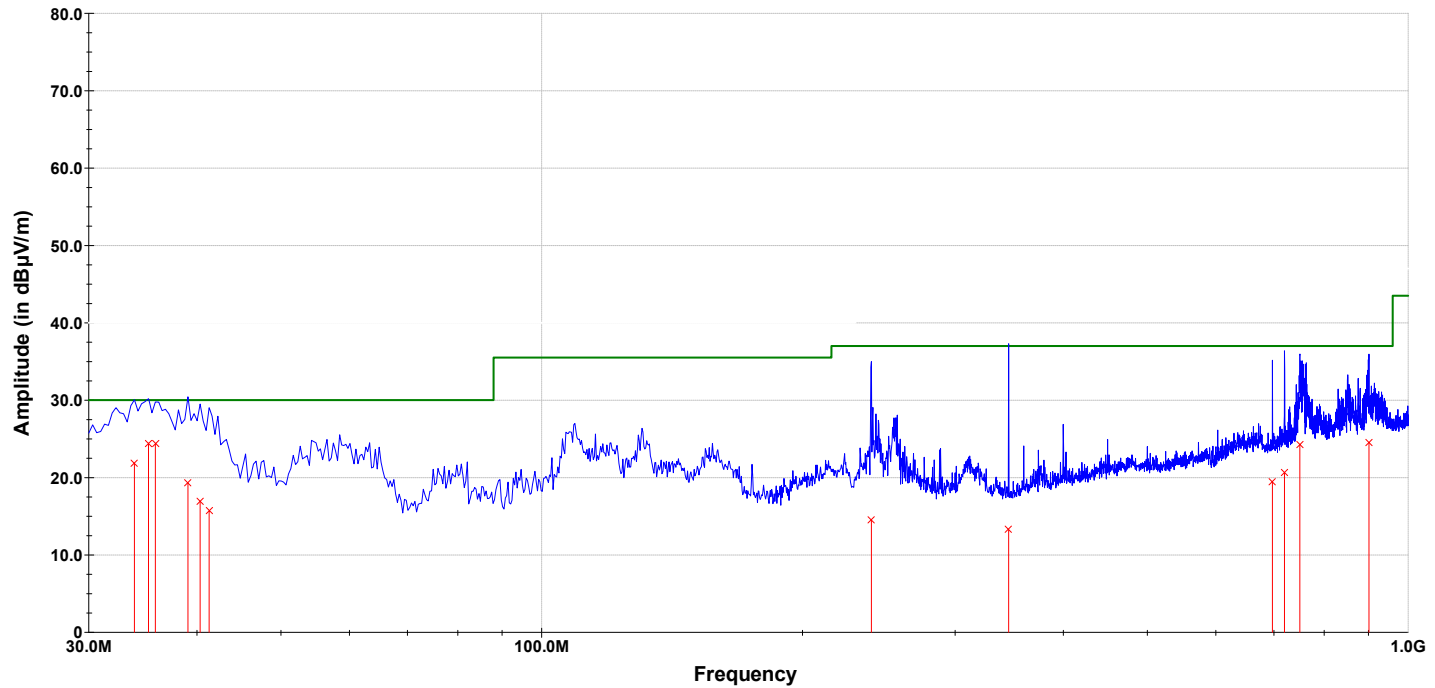
FCC Part 15, Class B
120 Vac/60Hz

Radiated Emissions

Peak and Quasi-peak Measurements

Graph Vertical Data

— Quasi-peak Limit
— Peak Data
× Quasi-peak Data



EUT: Verity Touch Writer w/Brother L6400 Laser printer

Operator: WK

Customer: SLI Compliance

Last Data Update 02:43:20 PM, Tuesday, March 29, 2022

PR#: 154296

Radiated Emissions Vertical, 30MHz to 1000MHz, Peak Measurements at 10m Distance



Radiated Emissions

Quasi-peak Measurements

Table: Vertical Quasi-peaks below 1 GHz

Operator: WKEUT: Verity Touch Writer w/Brother L6400 Laser printer

PR#: 154296

Customer: SLI Compliance

Frequency Amplitude Quasi-peak Delta to Lir EUT Azimu Antenna Height

MHz	in dB μ V/m	in dB μ V/m	in dB	in degrees	in cm
33.88	21.8	30	-8.2	282	275
35.173	24.4	30	-5.6	291	274
35.82	24.3	30	-5.7	255	124
39.053	19.3	30	-10.7	27	124
40.347	16.9	30	-13.1	14	124
41.317	15.7	30	-14.3	14	124
240.167	14.5	37	-22.5	240	124
345.897	13.3	37	-23.7	61	274
697.36	19.5	37	-17.5	137	123
720	20.6	37	-16.4	192	278
750	24.2	37	-12.8	0	237
901.06	24.5	37	-12.5	126	195

FCC Part 15 Class B

120 Vac/60Hz

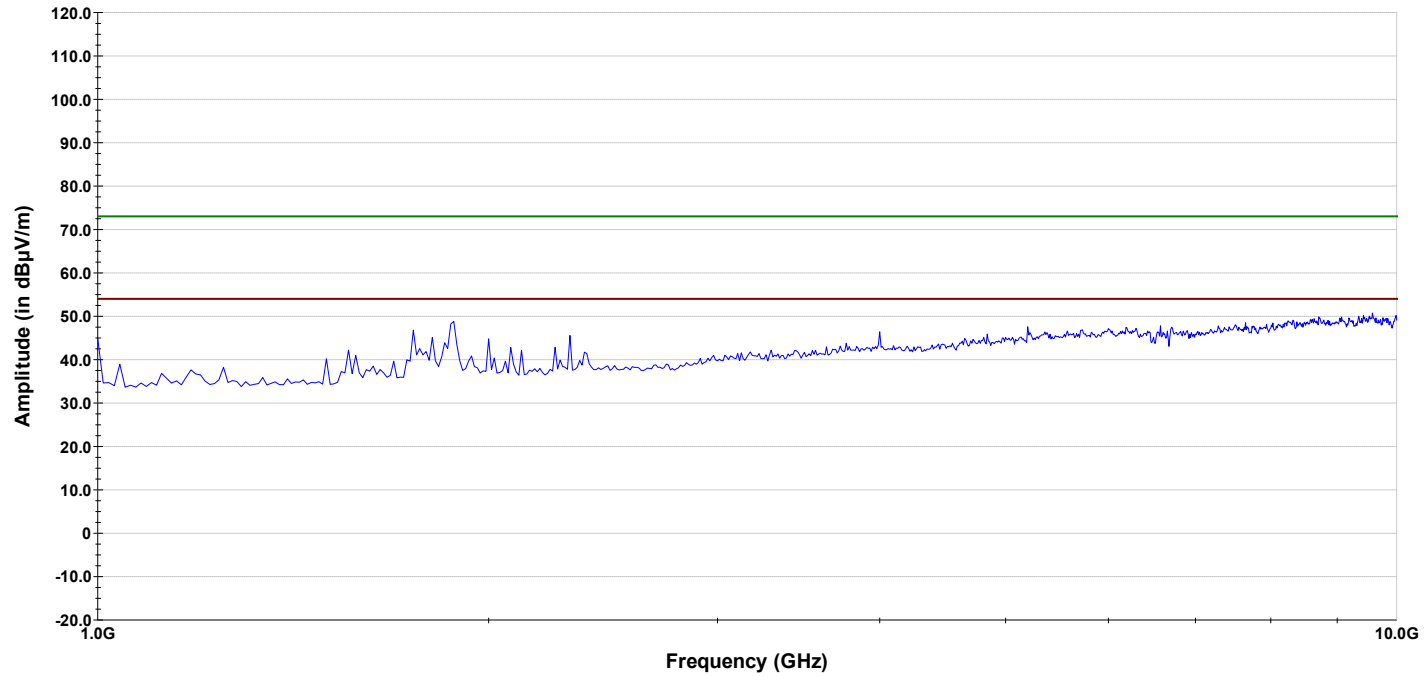
FCC Part 15
120Vac/60Hz

Radiated Emissions

Peak and Average Measurements

Graph: Horizontal Data

— Peak Limit
— Average Limit
— Peak Data



Operator: T. Wittig

Last Data Update 02:54:30 PM, Monday, April 18, 2022

EUT: Verity Touch Writer

Customer: SLI Compliance

PR#: PR154296

Radiated Emissions Horizontal, 1GHz to 10GHz, Peak Measurements at 3m Distance

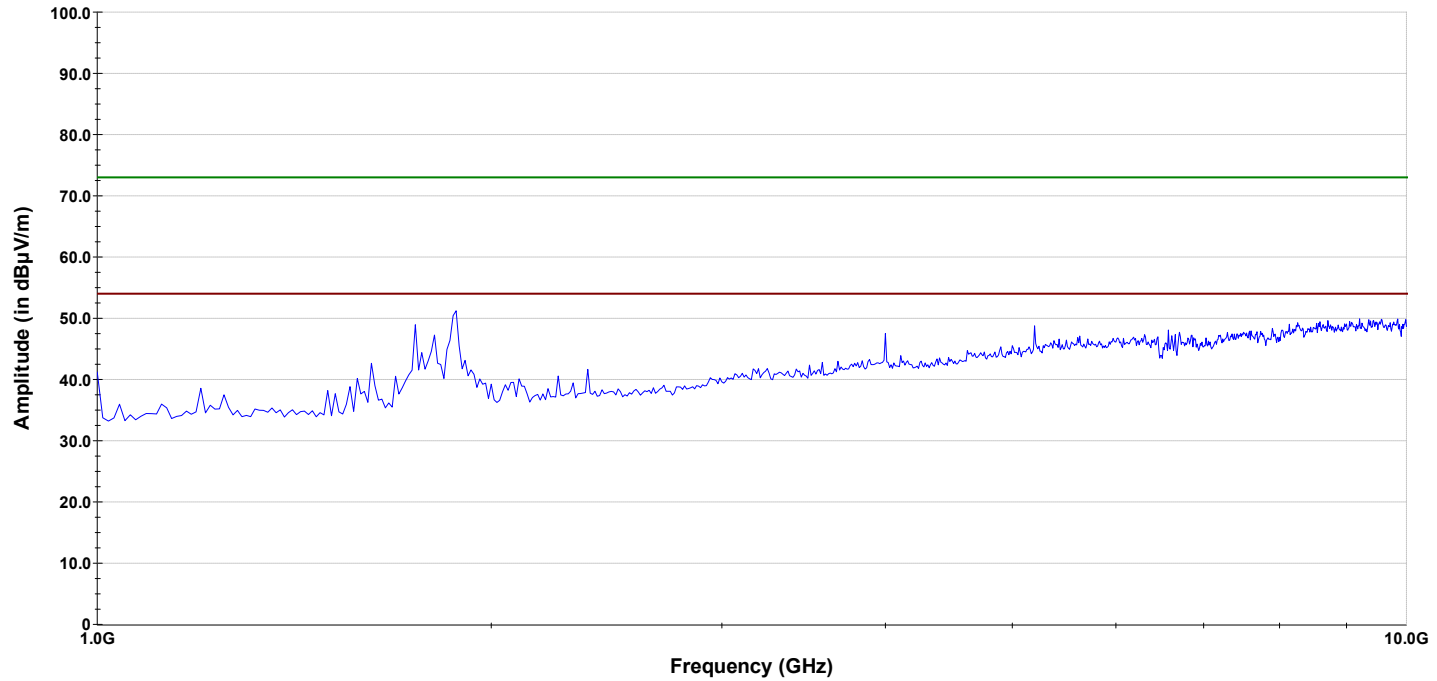
FCC Part 15
120Vac/60Hz

Radiated Emissions

Peak and Average Measurements

Graph: Vertical Data

— Peak Limit
— Average Limit
— Peak Data



Operator: T. Wittig

Last Data Update 03:15:50 PM, Monday, April 18, 2022

EUT: Verity Touch Writer

Customer: SLI Compliance

PR#: PR154296

Radiated Emissions Vertical, 1GHz to 10GHz, Peak Measurements at 3m Distance



Radiated Emissions

Peak Data

Table: Horizontal Peak Data above 1 GHz

Operator: T. Wittig EUT: Verity Touch Writer

PR#: PR154296

Customer: SLI Compliance

Frequency	Amplitude	Peak Limit	Delta to Pk Limit	Average Limit	Delta to Ave Limit	EUT Azimuth	Antenna Height
MHz	in dBμV/m	in dBμV/m	in dB	in dBμV/m	in dB	in degrees	in cm
1000	44.9	73	-28.1	54	-9.1	90	220
1560	42.2	73	-30.8	54	-11.8	180	281
1750	46.8	73	-26.2	54	-7.2	120	130
1880	48.8	73	-24.2	54	-5.2	120	130
2000	44.8	73	-28.2	54	-9.2	120	130
2310	45.5	73	-27.5	54	-8.5	90	100
9580	50.8	73	-22.2	54	-3.2	240	370
FCC Part 15							
120Vac/60Hz							



Radiated Emissions						
Average Measurements						
Table: Horizontal Averages above 1 GHz						
Operator: T. Wittig EUT: Verity Touch Writer						
PR#: PR154296						
Customer: SLI Compliance						
Frequency	Amplitude	Average Limit	Delta to Limit	EUT Azimuth	Antenna Height	
MHz	in dBμV/m	in dBμV/m	in dB	in degrees	in cm	
1000	21.6	54	-32.4	60	212	
1560	22.1	54	-31.9	150	310	
1750	24.4	54	-29.6	149	133	
1880	25.2	54	-28.8	111	155	
2000	32.3	54	-21.7	108	145	
2310	25	54	-29	104	102	
9580	36.6	54	-17.4	240	339	
FCC Part 15						
120Vac/60Hz						



Radiated Emissions

Peak Data

Table: Vertical Peak Data above 1 GHz

Operator: T. Wittig EUT: Verity Touch Writer

PR#: PR154296

Customer: SLI Compliance

Frequency	Amplitude	Peak Limit	Delta to Pk Limit	Average Limit	Delta to Ave Limit	EUT Azimuth	Antenna Height
MHz	in dBμV/m	in dBμV/m	in dB	in dBμV/m	in dB	in degrees	in cm
1000	41.2	73	-31.8	54	-12.8	90	100
1620	42.6	73	-30.4	54	-11.4	150	251
1750	48.9	73	-24.1	54	-5.1	120	100
1880	51.2	73	-21.8	54	-2.8	150	251
9210	49.9	73	-23.1	54	-4.1	330	161
FCC Part 15							
120Vac/60Hz							



Radiated Emissions					
Average Measurements					
Table: Vertical Averages above 1 GHz					
Operator: T. Wittig EUT: Verity Touch Writer					
PR#: PR154296					
Customer: SLI Compliance					
Frequency	Amplitude	Average Limit	Delta to Ave Limit	EUT Azimuth	Antenna Height
MHz	in dB μ V/m	in dB μ V/m	in dB	in degrees	in cm
1000	21.9	54	-32.1	60	130
1620	22.6	54	-31.4	180	276
1750	25.6	54	-28.4	148	113
1880	26.5	54	-27.5	131	262
9210	36.7	54	-17.3	359	132
FCC Part 15					
120Vac/60Hz					



5.1.6 Test Equipment List

Table 5.1-1: Radiated Emissions Test Equipment List

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
WC059736	Chamber (EMI, Semi-Anechoic)	CIR Enterprises	CH 1	04/03/2022	04/03/2024
WC059439	Meter (Digital Multimeter)	Fluke	85	07/30/2021	07/30/2022
WC059745	Power Supply (AC)	California Instruments	MX15-1	NCR	NCR
WC059748	Controller (System)	Sunol Sciences	SC104V	NCR	NCR
WC059822	Receiver	Keysight Technologies	N9038A	10/08/2021	10/08/2022
WC070276	Antenna (Biconical)	Sunol Sciences	JB1	09/21/2021	09/21/2023
WC078465	Amplifier (Pre/RF/Low Noise)	Pasternack Enterprises	PE15A1013	06/02/2021	06/02/2022
WC078470	Software	ETS-Lindgren	C47213	NCR	NCR
WC078486	Meter (Hydrometer)	Extech Instruments	Datalogger 42270	06/14/2021	06/14/2022

Calibration Abbreviations

CAL: Calibration

NCR: No Calibration Required

5.2 Conducted Emissions

5.2.1 Test Procedure

FCC Part 15

5.2.2 Test Result

The Verity Touch Writer with Brother L6400 Printer met the specification requirements for Conducted Emissions.

5.2.3 Test Datasheets



National Technical Systems				
Conducted Emissions, FCC Part 15, Class B				
Standard Referenced: <u>FCC Part 15, Class A</u>		Date: <u>3/24/2022</u>		
Temperature: <u>20°C</u> Humidity: <u>24%</u>		Pressure: <u>831mb</u>		
Input Voltage: <u>120Vac, 60Hz</u>		LISN Bonding: <u>2.1 mOhms</u>		
Configuration of Unit: <u>Verify Scan w/Ballot box fully exercising all features of product.</u>				
Test Engineer: <u>W. Koenig</u>				
Date	Time	Log Entries	Initials	Result
3/24/22	1500 - 1515	Ambient scan and EUT setup for Conducted Emissions.	WK	---
	1515 - 1600	Conducted Emissions, 150 kHz - 30 MHz. FCC Part 15. Class B. 120 VAC / 60 Hz	WK	Pass



National Technical Systems	
Conducted Emissions, FCC Part 15, Class B	
Standard Referenced: <u>FCC Part 15, Class A</u>	Date: <u>3/24/2022</u>
Temperature: <u>20°C</u> Humidity: <u>24%</u>	Pressure: <u>831mb</u>
Input Voltage: <u>120Vac, 60Hz</u>	LISN Bonding: <u>2.1 mOhms</u>
Configuration of Unit: <u>Verify Scan w/Ballot box fully exercising all features of product.</u>	
Test Engineer: <u>W. Koenig</u>	

“Type” refers to the type of measurement performed. The type of measurement made is based on the requirements of the particular standard:

PK = Peak Measurement: RBW is 9 kHz, VBW is 3 MHz

QP = Quasi-Peak Measurement: RBW is 9 kHz, VBW is 3 MHz, and QP Detection is ENABLED

AV = Video Average Measurement: RBW is 9 kHz, VBW is 10 Hz

The “field strength” (FS) emissions level is attained by adding the received amplitude measured (RA), Antenna factor (AF), and cable factor (CF) minus the amplifier gain (AG). $FS = RA + AF + CF - AG$. Final measurements are made with the Azimuth, Polarity, Height, and EUT Cables positioned for maximum radiation. If applicable, cables positions are noted in the test log. (Sample Calculation: $49.6 \text{ dBuV} + 11.4 \text{ dB/m} - 28.8 \text{ dB (CF/AG)} = 32.2 \text{ dBuV/m}$. **Important Note:** This is a sample calculation only for the purpose of demonstration, and does not reflect data in this report.)

The “TestPoint” indicates which AC or DC input power line or which I/O cable the measurement was made on.

The “Margin” is with reference to the emissions limit. A positive number indicates that the emission measurement is below the limit. A negative number indicates that the emission measurement exceeds the limit.

The PRESCAN is a peak measurement and is performed with the RBW set to 9 kHz, and the VBW set to 3 MHz

5.2.4 Test Photographs



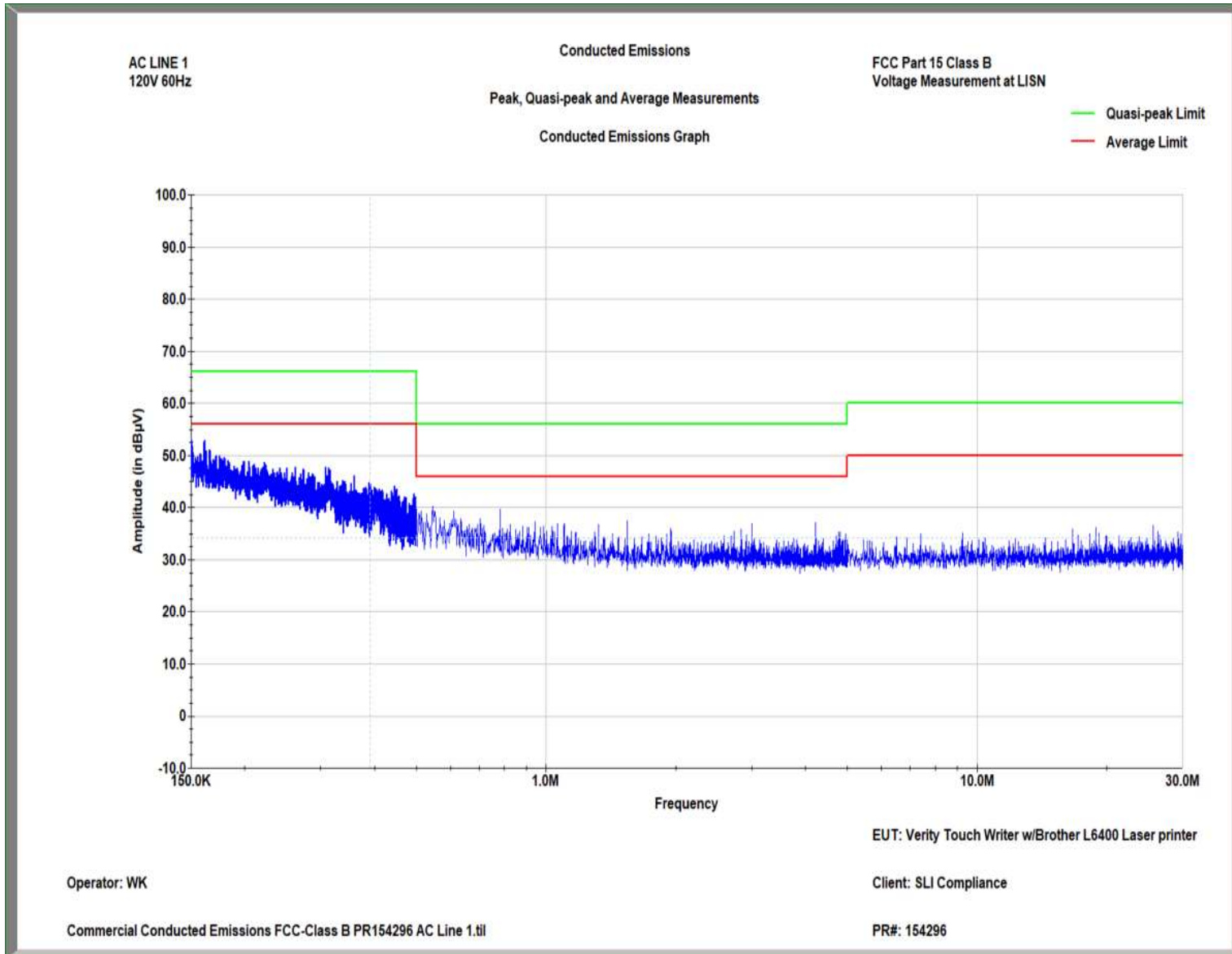
CE Back



CE Front

**CE Left****CE Right**

5.2.5 Test Data





Conducted Emissions
Average Measurements
Average Data Table

Operator: WKEUT: Verity Touch Writer w/Brother L6400 Laser printer
PR#: 154296

Tuesday March 29 2022 Client: SLI Compliance

Frequency Amplitude Quasi-peak Delta to Q_l Average Lir Delta to Average Limit

MHz	in dB μ V	in dB μ V	in dB	in dB μ V	in dB
0.15	32.17	66	-33.83	56	-23.83
0.15	32.2	66	-33.8	56	-23.8
0.15	32.87	66	-33.13	56	-23.13
0.16	31.81	66	-34.19	56	-24.19
0.16	31.56	66	-34.44	56	-24.44
0.16	31.47	66	-34.53	56	-24.53
0.16	31.26	66	-34.74	56	-24.74
0.17	31.73	66	-34.27	56	-24.27
0.18	31.03	66	-34.97	56	-24.97

AC LINE 1
120V 60Hz



Conducted Emissions

Peak Data

Peak Data Table

Operator: WKEUT: Verity Touch Writer w/Brother L6400 Laser printer

PR#: 154296

Tuesday March 29 2022 Client: SLI Compliance

Frequency Amplitude Quasi-peak Delta to Q_L Average Lir Delta to Average Limit

MHz	in dB μ V	in dB μ V	in dB	in dB μ V	in dB
0.15	53.15	66	-12.85	56	-2.85
0.15	51.79	66	-14.21	56	-4.21
0.16	50.36	66	-15.64	56	-5.64
0.16	52.54	66	-13.46	56	-3.46
0.16	52.84	66	-13.16	56	-3.16
0.16	50.88	66	-15.12	56	-5.12
0.17	51.05	66	-14.95	56	-4.95
0.17	49.97	66	-16.03	56	-6.03
0.17	49.94	66	-16.06	56	-6.06
0.51	38.96	56	-17.04	46	-7.04
0.51	39.21	56	-16.79	46	-6.79
0.53	38.83	56	-17.17	46	-7.17
0.55	40.29	56	-15.71	46	-5.71
0.57	38.07	56	-17.93	46	-7.93
0.61	39.33	56	-16.67	46	-6.67
0.63	37.75	56	-18.25	46	-8.25
0.7	37.84	56	-18.16	46	-8.16
0.78	39.74	56	-16.26	46	-6.26
7.4	34.94	60	-25.06	50	-15.06
9.28	35.02	60	-24.98	50	-14.98
16.7	35.77	60	-24.23	50	-14.23
18.25	34.98	60	-25.02	50	-15.02
18.9	36.27	60	-23.73	50	-13.73
19.19	35.07	60	-24.93	50	-14.93
25.64	36.61	60	-23.39	50	-13.39
26.27	35.46	60	-24.54	50	-14.54
29.25	35.34	60	-24.66	50	-14.66

AC LINE 1
120V 60Hz



Conducted Emissions

Quasi-peak Data

Quasi-peak Data Table

Operator: WKEUT: Verity Touch Writer w/Brother L6400 Laser printer

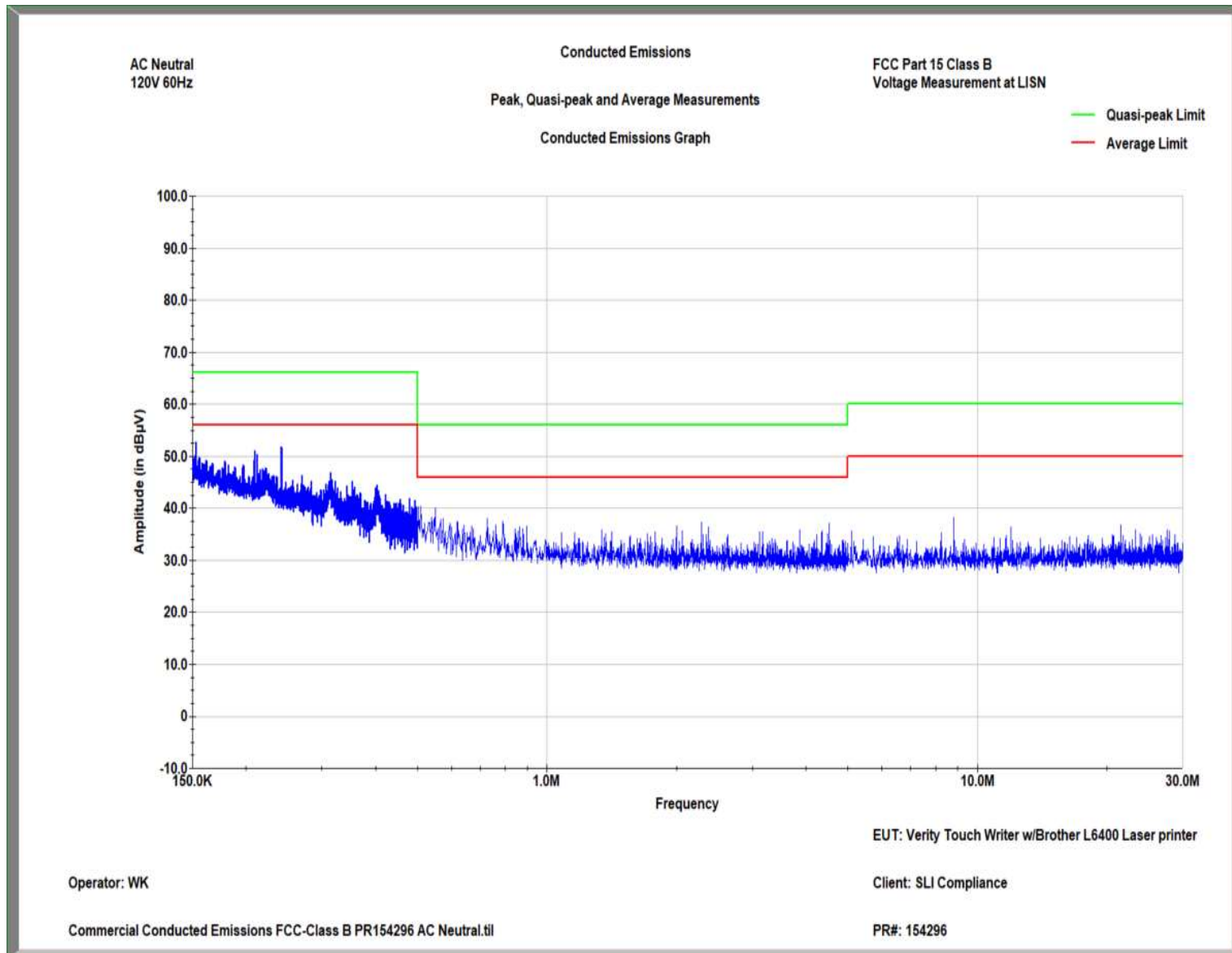
PR#: 154296

Tuesday March 29 2022 Client: SLI Compliance

Frequency Amplitude Quasi-peak Delta to Qc Average Lir Delta to Average Limit

MHz	in dBμV	in dBμV	in dB	in dBμV	in dB
0.15	42.22	66	-23.78	56	-13.78
0.15	41.78	66	-24.22	56	-14.22
0.15	42.7	66	-23.3	56	-13.3
0.15	42.09	66	-23.91	56	-13.91
0.15	41.23	66	-24.77	56	-14.77
0.16	41.13	66	-24.87	56	-14.87
0.16	41.34	66	-24.66	56	-14.66
0.16	41.06	66	-24.94	56	-14.94
0.16	40.84	66	-25.16	56	-15.16

AC LINE 1
120V 60Hz





Conducted Emissions
Average Measurements
Average Data Table

Operator: WKEUT: Verity Touch Writer w/Brother L6400 Laser printer

PR#: 154296

Tuesday March 29 2022 Client: SLI Compliance

Frequency Amplitude Quasi-peak Delta to Q₁ Average Lir Delta to Average Limit

MHz	in dB μ V	in dB μ V	in dB	in dB μ V	in dB
0.15	28.33	66	-37.67	56	-27.67
0.15	28.26	66	-37.74	56	-27.74
0.15	28.12	66	-37.88	56	-27.88
0.15	27.96	66	-38.04	56	-28.04
0.16	27.47	66	-38.53	56	-28.53
0.16	27.2	66	-38.8	56	-28.8
0.16	26.96	66	-39.04	56	-29.04
0.17	26.78	66	-39.22	56	-29.22
0.17	26.73	66	-39.27	56	-29.27

AC Neutral
120V 60Hz



Conducted Emissions
Peak Data
Peak Data Table

Operator: WKEUT: Verity Touch Writer w/Brother L6400 Laser printer
PR#: 154296
Tuesday March 29 2022 Client: SLI Compliance

Frequency Amplitude Quasi-peak Delta to Qc Average Lir Delta to Average Limit

MHz	in dBμV	in dBμV	in dB	in dBμV	in dB
0.15	50.1	66	-15.9	56	-5.9
0.15	52.68	66	-13.32	56	-3.32
0.16	49.69	66	-16.31	56	-6.31
0.16	49.14	66	-16.86	56	-6.86
0.18	49.06	66	-16.94	56	-6.94
0.21	49.13	66	-16.87	56	-6.87
0.21	51.03	66	-14.97	56	-4.97
0.21	50.23	66	-15.77	56	-5.77
0.24	51.83	66	-14.17	56	-4.17
0.5	40.21	56	-15.79	46	-5.79
0.51	40.33	56	-15.67	46	-5.67
0.54	38.24	56	-17.76	46	-7.76
0.55	40.03	56	-15.97	46	-5.97
0.57	37.76	56	-18.24	46	-8.24
0.57	37.95	56	-18.05	46	-8.05
0.62	37.43	56	-18.57	46	-8.57
0.73	38.01	56	-17.99	46	-7.99
0.79	37.47	56	-18.53	46	-8.53
5.1	35.69	60	-24.31	50	-14.31
8.26	35.36	60	-24.64	50	-14.64
8.82	38.2	60	-21.8	50	-11.8
11.96	36.35	60	-23.65	50	-13.65
21.54	36.8	60	-23.2	50	-13.2
23.32	35.8	60	-24.2	50	-14.2
23.93	35.19	60	-24.81	50	-14.81
27.63	35.82	60	-24.18	50	-14.18
27.91	35.56	60	-24.44	50	-14.44

AC Neutral
120V 60Hz



Conducted Emissions
Quasi-peak Data
Quasi-peak Data Table

Operator: WKEUT: Verity Touch Writer w/Brother L6400 Laser printer

PR#: 154296

Tuesday March 29 2022 Client: SLI Compliance

Frequency Amplitude Quasi-peak Delta to Q_L Average Lir Delta to Average Limit

MHz	in dB μ V	in dB μ V	in dB	in dB μ V	in dB
0.15	40.8	66	-25.2	56	-15.2
0.15	40.14	66	-25.86	56	-15.86
0.15	40.33	66	-25.67	56	-15.67
0.15	40	66	-26	56	-16
0.15	40.18	66	-25.82	56	-15.82
0.16	40.52	66	-25.48	56	-15.48
0.16	38.6	66	-27.4	56	-17.4
0.16	38.57	66	-27.43	56	-17.43
0.18	55.38	66	-10.62	56	-0.62

AC Neutral
120V 60Hz



5.2.6 Test Equipment List

Table 5.2-1: Conducted Emissions Test Equipment List

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
WC059736	Chamber (EMI, Semi-Anechoic)	CIR Enterprises	CH 1	04/03/2022	04/03/2024
WC059439	Meter (Digital Multimeter)	Fluke	85	07/30/2021	07/30/2022
WC059729	Power Supply (AC)	Pacific Power Source	TMX 140	NCR	NCR
WC059822	Receiver	Keysight Technologies	N9038A	10/08/2021	10/08/2022
WC076848	Network (LISN)	Solar Electronics	8012-50-R-25-BNC	12/08/2021	12/08/2022
WC078470	Software	ETS-Lindgren	C47213	NCR	NCR
WC078486	Meter (Hydrometer)	Extech Instruments	Datalogger 42270	06/14/2021	06/14/2022

Calibration Abbreviations

CAL: Calibration

NCR: No Calibration Required



6.0 Test Log

EMI Test Log

Manufacturer:	SLI Compliance	Project Number:	PR154296
Model:	Darrick Forester	S/N:	W2014374311, U64185J1N427136
Customer Representative:	Verity Touch Writer w/Brother L6400 Laser printer (support Equipment)		
Standard Referenced:	VVSG1.0 IEC 61000-4-6		

FR0105

10m Emissions

Test	Test Code	Date	Event	O T	Time (hrs)	Result	Initials
RE		March 24, 2022 1200 - 1230	Initial Product Setup for Radiated Emissions		0.5	---	WK
RE		1230 - 1340	Radiated Emissions, 30 MHz - 1 GHz. FCC Part 15. Class B. 120 VAC / 60 Hz		1.0	---	WK
RE		1340 - 1355	Lost all power in building. Restarting test equipment and clients EUT.		.25	---	WK
RE		1400 - 1500	Continuing Radiated Emissions, 30 MHz - 1 GHz. FCC Part 15. Class B. 120 VAC / 60 Hz		1.0	Pass	WK
CE		1500 - 1515	Ambient scan and EUT setup for Conducted Emissions.		.25	---	WK
CE		1515 - 1600	Conducted Emissions, 150 kHz - 30 MHz. FCC Part 15. Class B. 120 VAC / 60 Hz		.75	Pass	WK

RE 1-10GHz Test Log.

 National Technical Systems				
Radiated Emissions, FCC Part 15, Class B				
Standard Referenced: FCC Part 15, Class B		Date: 4/18/2022		
Temperature: 19°C	Humidity: 21%	Pressure: 844 mb		
Input Voltage: 120Vac, 60Hz		Linearity Check: Comply		
Configuration of Unit: Verity Touch Writer w/Brother 6400 printer fully exercising all features of product				
Test Engineer: T. Wittig				
Date	Time	Log Entries	Initials	Result
4/18/22	1400	Setup for RE Testing	TW	---
	1500	Begin RE testing	TW	---
	1630	Completed RE testing	TW	Pass



End of Test Report